

AMENDMENTS TO THE SPECIFICATION

Please amend the Specification as follows:

Amend the title on page 1 as follows:

[[DATA]] ITERATIVELY CLEANING DATA RECORDS BASED ON MATCHING THE DATA RECORDS TO STORED RECORDS

Amend ¶ [0003] on page 2 as follows:

[0003] In the main part, heuristic-type programs try each of several methods of solving a problem and judging whether it is closer to a solution after each attempt. For example, in order to tally up annual sales data by state, one must first determine the state for each sale. In cases where the state data is entered wrongly, thus being invalid data, or is entirely missing, and causing an anomaly for the established database, a routine may be implemented to infer the state data from a series of heuristics, such as: (1) if a sales record reports only a zip code, a cross-reference table can pull-up a unique city and state; and (2) if a sales record reports a city name but no zip code, the state may be determined if it is unique to the U.S., e.g., Seattle, Wash., but not for common city names such as "Franklin," which exists in 27 states. It can be recognized from this simple example that to clean even a single field of a data record may involve a large number of heuristics and database relational processing. This leads to data processing resource issues as the central processing unit and memory unit have finite capacities.

Amend ¶ [0015] on pages 6-7 as follows:

[0015] The persistent table 109 is maintained preferably for the Merchant Database 101 in a displayable format. The persistent table 109 keeps and maps crude key indexing data records, referred to hereinafter more simply as the "crude key indices" 111, for a merchant to a completely clean record 113 for that merchant. It will be ~~recognize~~ recognized by those skilled in the art that the "clean records" for purpose of implementation may be only a "cleanest key"--the most accurate crude key of a plurality of crude keys--where that "Merchant #" record 113 contains a pointer to a "cleanest key" 111_{1A} related full file for that respective merchant in tertiary memory. For the purpose of explaining this embodiment, the persistent table 109 is assumed to be adapted for producing the full, clean data, merchant file itself. Thus, for example,

assume "Merchant 1" 113₁ is an "Amoco" gasoline station, having an assigned identification number "3140," located in the city of "Roy," with a given street address, city name, 9 digit zip code, state name, telephone number, facsimile machine number, proprietor's name, credit rating, Social Security number, and the like, information that a credit card company would keep on-file in a semi-permanent data record 113, or "file," for each of its thousands of authorized merchant sites, Merchants 113₁ . . . 113_N, where the company's credit cards may be used by purchasers. Each Merchant's clean semi-permanent data record 113 is created, for example, when the merchant applies for and becomes an authorized merchant of the credit card company.

Amend ¶ [0031] on page 15 as follows:

[0031] Any input data records which are suitable for analysis with respect to clean data records in a memory may be analyzed and cleaned in accordance the present invention process as described hereinbefore. Moreover, whenever changes 129, 135 to the table, are implemented during a particular analysis operation, or on another basis such as a regular upgrade schedule, the aforementioned aspects of the table 109 as a tool may be regularly checked by an algorithm adapted for searching for anomalies, such as duplications or the like described hereinabove. If anomalies are discovered, appropriate rules of such a program may be implemented until the review is completed.

Amend ¶ [0034] on page 17 as follows:

[0034] Any input data records which are suitable for analysis with respect to clean data records in a memory may be analyzed and cleaned in accordance with the present invention process as described hereinbefore. Moreover, whenever changes 129, 135 to the table, are implemented during a particular analysis operation, or on another basis such as a regular upgrade schedule, the aforementioned aspects of the table 109 as a tool may be regularly checked 141, FIGURE 1, by an algorithm, "Edit Table," adapted for searching for anomalies, such as duplications or the like described hereinabove. If anomalies are discovered, appropriate rules of this editing program are implemented until the review is completed.

Amend ¶ [0036] on page 18 as follows:

[0036] The foregoing Detailed Description of exemplary and preferred embodiments is presented for purposes of illustration and disclosure in accordance with the requirements of the

law. It is not intended to be exhaustive nor to limit the invention to the precise form(s) described, but only to enable others skilled in the art to understand how the invention may be suited for a particular use or implementation. The possibility of modifications and variations will be apparent to practitioners skilled in the art. No limitation is intended by the description of exemplary embodiments which may have included tolerances, feature dimensions, specific operating conditions, engineering specifications, or the like, and which may vary between implementations or with changes to the state of the art, and no limitation should be implied therefrom. Applicant has made this disclosure with respect to the current state of the art, but also contemplates advancements and that adaptations in the future may take into consideration [[of]] those advancements, namely in accordance with the then current state of the art. It is intended that the scope of the invention be defined by the Claims as written and equivalents as applicable. Reference to a claim element in the singular is not intended to mean "one and only one" unless explicitly so stated. Moreover, no element, component, nor method or process step in this disclosure is intended to be dedicated to the public regardless of whether the element, component, or step is explicitly recited in the Claims. No claim element herein is to be construed under the provisions of 35 U.S.C. Sec. 112, sixth paragraph, unless the element is expressly recited using the phrase "means for . . . " and no method or process step herein is to be construed under those provisions unless the step, or steps, are expressly recited using the phrase "comprising the step(s) of"